# [TRANSIENT SIMULATION USING ADAPTIVE PIECEWISE CONSTANT MODEL]

# Abstract

A transient simulation system, methods and program product that implement an adaptive piecewise constant (PWC) model are disclosed. The invention evaluates an error criteria to determine a maximum allowable change in one of a current and a voltage; and simulates the transient conditions by implementing an adaptive step in the PWC model according to the maximum allowable change. The invention allows dynamic or static adaptation of a PWC model according to an error criteria.